CONST

LESLIE EQUIPMENT CO.

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
Store 8 - Pikeville
Machine Id
JOHN DEERE EX-08
Component
Diesel Engine
Fluid
SHELL ROTELLA T 15W40 (14 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

The lead level is abnormal. Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

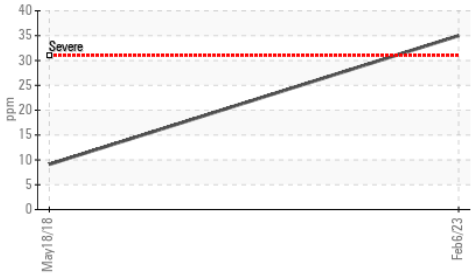
Sodium and/or potassium levels are high. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

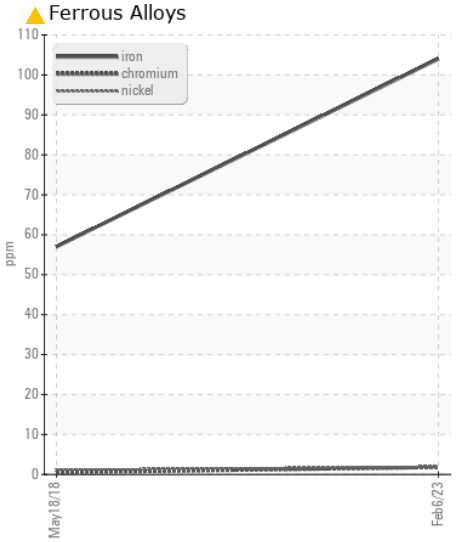
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0033820	LECP188501	---
Sample Date		Client Info		06 Feb 2023	18 May 2018	---
Machine Age	hrs	Client Info		2104	575	---
Oil Age	hrs	Client Info		568	575	---
Filter Age	hrs	Client Info		568	575	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	ABNORMAL	---
Iron	ppm	ASTM D5185m	>51	▲ 104	57	---
Chromium	ppm	ASTM D5185m	>11	2	<1	---
Nickel	ppm	ASTM D5185m	>5	2	1	---
Titanium	ppm	ASTM D5185m		1	12	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>31	● 14	6	---
Lead	ppm	ASTM D5185m	>26	▲ 37	24	---
Copper	ppm	ASTM D5185m	>26	23	▲ 343	---
Tin	ppm	ASTM D5185m	>4	4	4	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>!20	▲ 35	9	---
Potassium	ppm	ASTM D5185m	>20	▲ 155	18	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol	%	*ASTM D2982		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.5	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	14.0	11.	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.8	25.	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	---
Sodium	ppm	ASTM D5185m	>31	▲ 1078	13	---
Boron	ppm	ASTM D5185m	316	28	62	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	1.2	259	186	---
Manganese	ppm	ASTM D5185m		2	4	---
Magnesium	ppm	ASTM D5185m	24	688	702	---
Calcium	ppm	ASTM D5185m	2292	1372	1408	---
Phosphorus	ppm	ASTM D5185m	1064	718	819	---
Zinc	ppm	ASTM D5185m	1160	925	1011	---
Sulfur	ppm	ASTM D5185m	4996	3725	2290	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	26.5	25.	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.0	7.30	---
Visc @ 100°C	cSt	ASTM D445	15.7	13.4	10.17	---

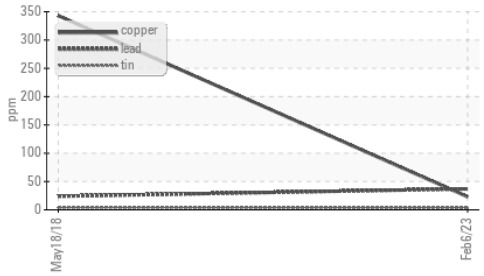
Silicon (ppm)



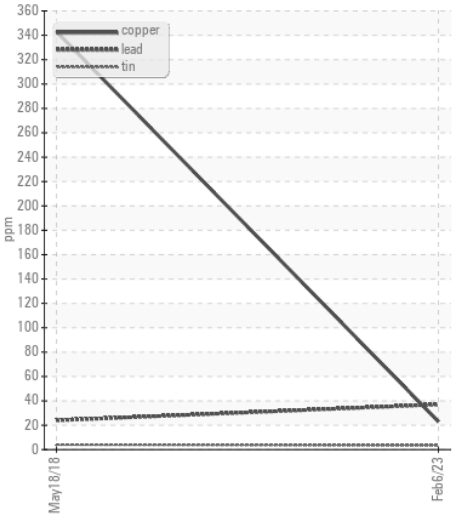
Ferrous Alloys



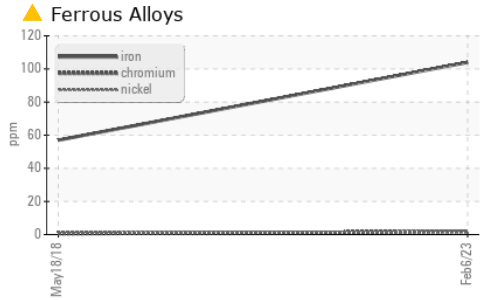
Non-ferrous Metals



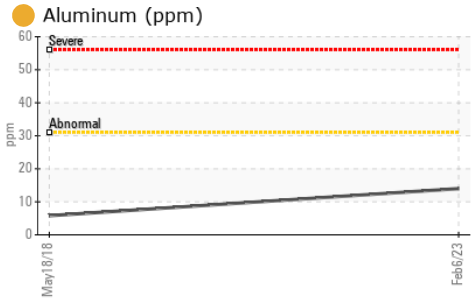
Non-ferrous Metals



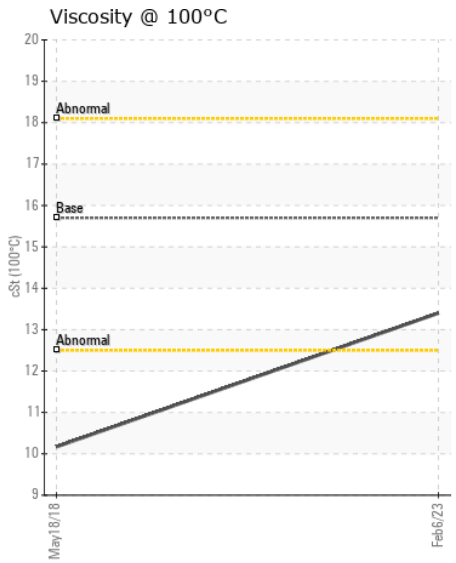
Ferrous Alloys



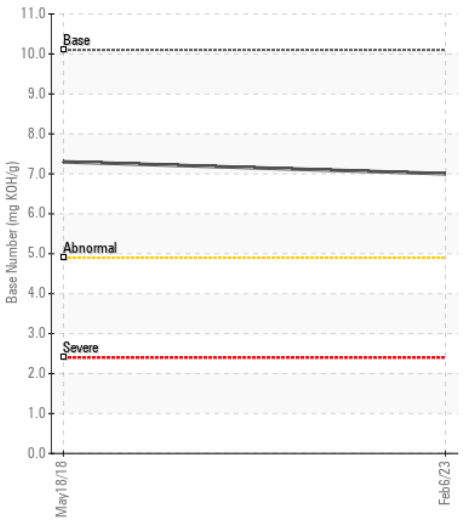
Aluminum (ppm)



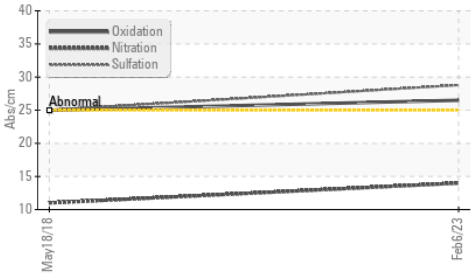
Viscosity @ 100°C



Base Number



FT-IR (Direct Trend)



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0033820 **Received** : 13 Feb 2023
Lab Number : 05765587 **Tested** : 16 Feb 2023
Unique Number : 10335195 **Diagnosed** : 16 Feb 2023 - Jonathan Hester
Test Package : CONST (Additional Tests: Glycol, TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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